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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,164	08/30/2004	Pierre-Yves Thro	257161US2PCT	6681
22850 7590 12/20/2006 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NGUYEN, TUAN N	
			ART UNIT 2828	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/505,164	THRO ET AL.	
	Examiner	Art Unit	
	Tuan N. Nguyen	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-34 is/are allowed.
- 6) ☒ Claim(s) 18-22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/30/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

OBJECTION

1. Independent claim 26, should be rewritten to show the full resonator as claim in claim 18 instead of "*A laser device, comprising: at least three pulsed optical resonators according to claim 18*".

Claim Rejections - 35 USC § 102

2. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all obviousness rejections set forth in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18, 19, 21, 22, 24, 25 are rejected under 35 U.S.C. 102(b) as being unpatentable over Beausoleil (US 5321709).

With respect to claim 18 Beausoleil '709 shows and discloses an optical resonator with a solid state amplifying medium, the optical resonator being pulsed and pumped by diodes operating continuously, and comprising: at least two laser rods (*Fig 2: two laser bar diode rods Nd:YAG within optical resonator being pulsed and pumped continuously*); the means for triggering located in a part of the optical resonator in which a laser beam generated by the optical resonator diverges least (*Fig 2,4: Q-SW where trigger means/Q switch are located in the optical resonator diverges least*), and first and second mirrors that delimit a cavity of the optical resonator, the first mirror being reflecting and the second mirror being partly reflecting (*Fig 4: 164,158 first and second mirrors delimit resonator cavity total and partial reflecting*).

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With respect to claims 19, 21, 22 Beausoleil '709 shows and discloses wherein the at least two laser rods comprise isotropic material of Nd:YAG or Yb:YAG, and means for polarization rotation on a path of the laser beam in each of spaces formed by two successive of the at least two rods, the rotation being 90.degree (*Fig 4: two Nd:YAG rods made of substantially identical material, and 148 polarization rotation means placed between the two rods deflecting beam at 90 degrees*).

With respect to claims 24, 25 wherein the means for triggering are of acousto-optical type and associated with one or plural single pass amplifiers (Col 1: 20-25 Q-switch acousto-optic type trigger amplified signal output once pulse beam has been oscillating within the resonator).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

5. Claims 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beausoleil (US 5321709).

With respect to claim 20, Beausoleil '709 shows and discloses the above. The claim further comprising a divergent lens, in a middle of each interval between two adjacent rods of the at least two rods. It has been held omission of an element and its function in a combination where the remaining element perform the same as before only routine skill in the art, in this case it is well known in the art to use a divergent lens (concave/convex, prism, lens) to focus or redirecting the beam for its intended use.

REASON FOR ALLOWANCE

Allowable Subject Matter

6. Claim 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of the record fail to teach or suggest:

Claim 23:

wherein the means for triggering pulses placed in each pulsed optical resonator comprises two Q-switches located in the interval, on each side of the means for polarization rotation, between the means for polarization rotation and the at least two laser rods.

Allowable Subject Matter

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7. The following is an examiner's statement of reasons for allowance, with respect to claims 26 the references of the record fail to teach or suggest *A laser device, comprising: at least three pulsed optical resonators according to claim 18:*

Claim 26:

means for transferring light pulses to substantially a same location on a target and at substantially a same time at the location; *and means for controlling the at least three pulsed optical resonators, so that all means for triggering forming part of the device operate synchronously.*

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication Information

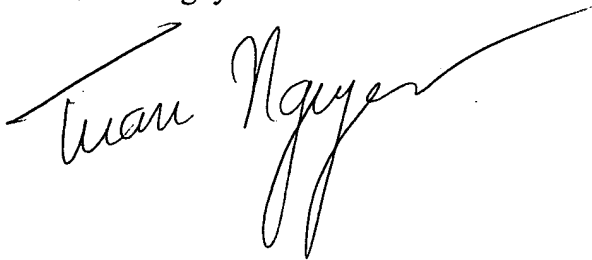
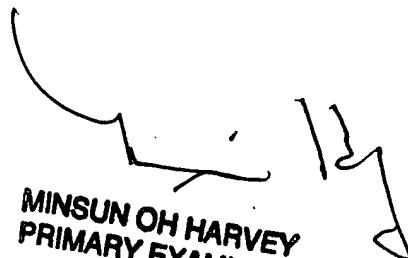
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan Nguyen", with a long, sweeping horizontal stroke extending to the right.A handwritten signature in black ink, appearing to read "Minsun Oh", with a large, stylized "H" and a long, sweeping horizontal stroke extending to the right.

**MINSUN OH HARVEY
PRIMARY EXAMINER**